

TRANSFORMING RURAL LIFE: A CASE OF BAPUDHAM MILK PRODUCER COMPANY MOTIHARI

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ABSTRACT

The Green revolution in India resulted in the immense increase in the production of wheat and rice and after its success the Indian government took up “Operation Flood “ program with a mission to increase the milk production. Operation Flood was a rural development program initiated by the National Dairy Development Board in the Year 1970 to create a nationwide milk grid. It resulted in making India, the largest producer of Milk and Milk products and hence it is known as White Revolution of India. It also helped in eradicating poverty by reducing the malpractices by milk traders and mercenary merchants and empowering them with the control of the resources that they create. The Operation flood started with the objective of Increase production of milk, which augmented the rural incomes and offer fair prices for consumers. This study mainly focuses on the operational set up done by Bapudham Milk Producer Company in the small town of Bihar named Motihari. It discusses how this company has started its operations in this area and what type of problems it has faced during the initial set up. The main objective of this study was to find the impact of BMPC on the life of dairy farmers. It attempts to investigate and analyze the difference in their standard of living by incorporation of Milk Pouring Points in their village area. The study also includes the working of MPPs and BMCs in milk production and the management of chain from procurement of Milk to supplying it to Mother Dairy for delivering to end users and tries to find out the areas where there is a need of improvement and expansion.

KEYWORDS: Green Revolution, Dairy, Milk Producer Company & Milk Pouring Point

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1. INTRODUCTION

Green Revolution in India has showed a positive impact on the life of farmers by providing high yield variety seeds, enhancing the proper use of fertilizers, use of modern technology in farming and proper irrigation system, making India self-sufficient in term of consumption of food grains. After the huge success of green revolution in India, Government thought to run a similar programme to increase the milk production in India and making India one of the largest milk producers in world and hence Operation Flood was initiated by National Dairy Development Board in 1970s under the supervision of Mr. Verghese Kurien, chairman of NDDB at that time. It was aimed to create nationwide milk grid and connecting all the dairy farmers at national level by increasing the milk production, providing fair prices to both producers and consumers and empowering the producers by providing control to the resources created by them. Anand Milk Union Limited known as AMUL was the main force behind this great success and this revolution was known as White Revolution.

White revolution led to creation of various milk cooperatives across whole nation and it was implemented in various phases across all states of India. This operation helped to uplift the conditions of poor farmers but it

didn't result in removal of the exploitation of these farmers completely by the society. It was the time to work on such concept which helps in providing freedom to these farmers and they were saved from exploitation by the upper level of society. It led to the concept of Producer Company.

Producer Company is a body corporate registered as producer company under 'Company Act 1956', which has the objective of production, harvesting, procurement, grading, pooling, handling, marketing, selling, and export of primary produce of the members or import of goods or services for their benefit. It also renders technical services, consultancy services, training, education, research and development and all other activities for the promotion of the interests of its members. It also includes generation, transmission and distribution of power, revitalization of land and water resources, their use, conservation and communications related to primary produce as well as promoting mutual assistance, welfare measures, financial services, insurance of producers or their primary produce.

On the concept of producer company, National Dairy Development Board (NDDB) owned subsidiary National Dairy Services (NDS) is assisting the milk producers into incorporation and operationalized them in various parts of India. Some of it includes Paayas in Rajasthan, Maahi in Gujrat, Baani in Punjab, Saahaj in U. P., Shreeja in Andhra and Bapudham in Bihar. These MPCs have enrolled lakhs of consumers and around 50% are women. These milk producer companies are procuring together around 20 lakh kg of milk per day during a year.

The latest addition to this list is Bapudham MPC which was operationalized on 2nd October 2017 and within 1.5 years it has connected to 47000 farmers and around 78000 liter milk is procured everyday by this company and provided to Mother Dairy. To set up this producer company approx. 20 crore rupees was given by World Bank and 11 crore by Mother Dairy. Mother Dairy also did initial set up of MPP in some areas so that it will be easy for BMPC to cover more areas and empower more members.

2. COMPANY PROFILE

2.1 Introduction

Bapudham Milk Producer Company is a company formed under Company Act, 2013 under National Dairy Development Board initiative. It is first of its kind in Bihar. Bapudham Milk Producer Company was operationalized on 2nd, October 2017 with an objective of providing round the year stable & competitive price to rural milk producers and enhancing the milk supply and quality. The Company is headquartered in Motihari, East Champaran (Bihar) and three cluster office at Chhatauni, Motihari, Bettiah and Gopalganj. Bapudham MPC has established institutional structures that are designed keeping at the helm the benefit to farmers at large which supports efforts to strengthen their business, enhances productivity, assures quality and facilitates the use of information for commercial decision making. At present the company is procuring milk from three districts of Bihar i. e. East Champaran, West Champaran and Gopalganj. Within 1.5 years of operation the company has grown at a tremendous rate and currently about 77,600 liters of milk is procured from 1151 MPPs connected to 30 BMCs. The company is planning to expand its MPPs to 1200 and procure about 1.5 lakh liters milk within a short span of time.

2.2 Mission

By 2030, Bapudham Milk Producer Company will procure quality milk from all its members at a competitive rate and will provide technical services to increase milk production and reduce expenditure and determined to increase their profits earned from the milk business.

2.3 Vision

Bapudham Milk Producer Company aspires to be one of the leading entities in the top 20 Milk Producer institutions across the nation. Company will be the prime choice among milk producers, employees & consumers.

2.4 Values

Bapudham Milk Producer Company is constantly committed towards its transparency and honesty regarding its services and adheres to the International Quality Standards for procuring milk and milk products with high quality for its consumers. We believe in customer satisfaction and farmer's prosperity.

Bapudham Milk Producer Company adheres to the following values:

- Honesty
- Transparency
- Information & Awareness
- Quality
- Responsibility
- Time commitment
- The interest of the institution is paramount

2.5 Core Design Principles of Bapudham MPC

These are the core design principles which are being followed at Bapudham MPC.

- Business only with members
- Active equity in proportion to patronage
- Member equity in proportion to patronage
- Patronage based member classes and member class representation on the board to ensure inclusiveness in governance
- Appropriate mechanism for member communication and grievance redressal.
- Professionally managed business operations and economy of a scale sufficient to ensure viability and self-sustenance at the earliest.
- Building an efficient value chain management for maximizing returns to members.
- Leveraging technology for information and data management to ensure transparency and deliver need based services.

2.6 Membership Eligibility

A milk producing farmer who is of 18 years or above can become a member of Bapudham MPC irrespective of gender if he/she possesses the following characteristics:

- he/she owns milk giving cattle.
- he/she resides in village.
- agrees to follow the terms and conditions of the company for becoming member.

If he/she is fulfilling the above characteristics then he/she needs to fill the membership form and give Rs.100 & Rs.50 for male and female respectively.

A milk producing farmer cannot become a member if he/she possesses any business interest which is in conflict with the business of Bapudham MPC and only one eligible person from a household can be enrolled as the member of Bapudham MPC.

The applicant receives a 16 digit unique code after due approval of the board of MPC to pour milk of the required quality and standards to MPP as a member. The date of approval from board is considered as the date of membership.

2.7 Continuation of Membership

A member can continue his/her membership lifelong by fulfilling the following criteria :

- A minimum of 500 liters annual milk supply to milk pouring center.
- At least 200 days milk supply in a year.
- Lean to flush ration for milk supply should be 1:3
- Member must own at least five shares in the company.
- Subscribe for additional shares matching the annual quantity of milk supplied by agreeing to contribute Rs.1/- per liter of milk poured for share capital building.

2.8 Different Classes of Membership

There are three different categories of members in the company as A, B, C class members. This categorization is based on the milk quantity supplied as well as consistency in supplying milk (total milk quantity supplied and total day's supply) and their share capital contribution.

Table 1

Sl. No.	Parameter	Class A	Class B	Class C
1.	No. of days of milk supplied to the company in a year	270 days or more	270 days or more	200 days or more
2.	Annual milk quantity supplied to the company in a year	3000 or more	1500 or more but less than 3000	500 or more but less than 1500
3.	Minimum number of shares subscribed (amount of share capital contributed)	Minimum 30 shares (Rs. 3000/-)	Minimum 15 shares (Rs. 1500/-)	Minimum 5 shares (Rs. 500/-)
4.	Rate of milk quantity applied during winter months (August to February) to that of summer months (April to July) during a financial year	Winter to Summer ratio shall not exceed 1:3	Winter to Summer ratio shall not exceed 1:3	Winter to Summer ratio shall not exceed 1:3

2.9 Discontinuation of Membership

If a member is not fulfilling the above minimum criteria of 500 liter of milk supply in any year then he/she will be questioned for that and he/she has some valid reasons such as if any unforeseen circumstances has happened then he/she will be given adequate time of 3-6 months to come out of that problem and if it doesn't happen then the unique membership code is blocked i. e. he/she is no longer a member of Bapudham MPC.

Sometimes a person is willing to discontinue his/her membership then he/she can give an application in the company and if it is approved then the code of that person will be blocked. If he/she is again willing to become a member of Bapudham MPC then he/she will give an application but it is up to board member to accept or reject his/her request. The application for renewal can be given after 2 years of discontinuation of membership only.

2.10 Services Provided by Bapudham MPC

Bapudham MPC as derived from name is just not a producer company but it is also engaged in various other types of services such as

- Milk Procurement
- Production enhancement services
- Awareness and training program campaign to the members and other villagers.
- Selling of milk to Mother Dairy
- Working as an expert for the layman i. e. board members who doesn't have enough experience and qualification to run the company.
- Socio economic development with institution building

3. OPERATIONAL SETUP

Bapudham Milk Producer Company has expanded its operations at two levels. The Grass root level is MPP and then a collection of MPPs are working under a single BMC or milk chilling center.

3.1 Milk Pouring Points (MPP)

Milk Pouring Points (MPP) are the first point of connection where the company is working at the grass root level i. e. they are trying to connect to the farmers and motivating them to rear more milking animals and empower them by providing proper training to help in better rearing of cattle.

At the MPP, all the members collect their milk in morning and evening and then the milk is being tested, weighted and the money value is assigned to the milk according to its quality. All these things are done by the volunteer chosen by the company and he keeps a check on all the processes. After the slip is generated, cow milk and buffalo milk are being kept separately in green and black marked containers respectively. Then all the milk collected by different farmers are being mixed and tested in the analyzer and the SNF value and Fat value is noted for further work. Then the milk is sent to the BMC center for further processing.

At one MPP around 300 liter of milk is collected in morning shift and 220–225 liter of milk in evening shift i. e. every day on average 500 liters of milk is collected. To test the milk quality and determination of its price on that basis, several machines are used at milk pouring point center.

3.2 Bulk Milk Chilling (BMC)

Bulk milk chilling center is the place where the milk from many MPPs are collected and then tested to match the SNF and Fat value as derived by the volunteer at MPP. Then it is further tested by the chemist to check its suitability for consumption and presence of any harmful chemical. If it is being passed by the chemist then the cow milk and buffalo milk is put in different cooling tanks containing condenser and compressor to chill it to 4 degree centigrade to maintain the quality of milk. The chilling time is around 1–1.5 hrs. After chilling the milk is being sent to the Mother Dairy plant for further processing, packaging and delivering it to end users.

One Milk Chilling Center (MCC) covered around 20–25 MPPs of the area. At BMC, one BMC in charge is appointed who is responsible for overall supervision of work being done at BMC as well as to update the data collected in pendrive at various MPPs to the central server of Bapudham MPC so that it can be seen and accessed by the higher authority in Bapudham office to check any information. Chemists are also at MCC to check the quality of milk and test any presence of chemicals to confirm that it is suitable for consumption by human. The in charge is supported by two laborers who helps in delivering of services.

From all the MPPs the milk collected in morning shift and were to accommodate in two cooling tanks having capacity 5,000 liters of milk respectively. One tank marked green was for cow milk and other marked black was for buffalo milk. After the milk was transferred from containers to cooling tank, the container is washed on a daily basis to prevent contamination through a machine.

There were several machines which were being used at BMC for milk chilling such as cooling tank to chill milk to 4 degree centigrade and other supporting machines.

3.3 Selection of a New Milk Pouring Point Centre

To further expand its territory of milk pouring, new MPP is being selected by a well-established procedure:

- At first survey if the village is done to know about the number of milking animals in the village and nearby villages within extent of 2–3 km.
- Then further the quantity of milk production is being analyzed and surplus consumption is taken in account i. e. how much milk is left to the farmers for selling purpose after their own consumption.
- Then, a meeting is being conducted in the village with all the villagers and head of village to inform them about the company and the reason of their arrival in the village. In this process the Producer Institution Building executives and head try to influence them by describing the advantages of selling their milk to Bapudham MPC and other benefits being provided to them.
- Then the PIB Manager chooses one volunteer amongst the villagers by mutual consensus. The volunteer is a part time employee working in two shifts i. e. morning and evening at the MPP and under his supervision milk is being collected, tested and sent to the allotted BMC.
- The volunteer has to deposit DD of Rs. 20,000 as a security money as it is his responsibility to secure all the machines at MPP and if anything is damaged then he will be liable for payment. The volunteer is an off-roll employee who gets Rs. 1.10 per liter of milk collection at the MPP.

- Then, a place is chosen in the village as the MPP center for collection of milk and it will be under the supervision and control of volunteer.
- After this full setup of Milk testing machine is planted which cost around Rs. 1,50,000 and contains one ultrasonic milk stirrer, milk analyzer, data processor i. e. data control unit, electronic weighing machine, battery and a solar panel.
- After this, the PIB employees try to persuade the villagers to take the membership of company and motivate for more milk producing cattle rearing. They also give them regular training regarding cattle feed, quality of semen and empowering the villagers.

4. IMPACT ON THE LIFE OF FARMERS

Bapudham MPC has proved to be life changer for the rural farmers and to provide them better standard of living and a respectful life. During a visit to a Milk Pouring Point, the response of farmers were taken who came to milk collection center to give milk and tried to know about the benefits provided to them by this producer company. They were very happy on the opening of the MPP in their village and described us some advantages to them due to Bapudham MPC:

- **Transparent System**–The whole process of taking milk from farmers after giving them membership and shares of the company are as clear as water. Because at the time of submission of milk by them at MPP, the milk is weighted on electronic weighing machine and a slip is generated after testing the milk through stirrer and analyzer describing the amount of fat and SNF present in the milk and accordingly system generated prescribed rate is inscribed on the slip.
- **Timely Payment**–The farmers get the money directly in their bank account without any interference of the third party in three cycle for a month. For 1st of a month to 10th of the month, the money is being transferred on 13th of the month, for 11th to 20th of the month, money got transferred on 23rd and for the last part money is being transferred on the 3rd of next upcoming month.
- **Continuous source of income**–As compared to their previous schedule where sometimes their milk are being sold or sometimes not as well as the money not given on time by the customers, Bapudham MPC is providing a continuous source of income to the small and marginal farmers at a competitive rate between Rs. 19.46 to Rs. 54.74 on the basis of fat and SNF content and a market at home for whole year.
- **Time saving**–As of now the time taken by farmers to sell the milk is very less since they just take it to MPP at the fixed time in morning and evening but previously they went to nearby cities of the village to sell their milk and milk products which was time consuming as well as hectic for them.
- **Three time increment in the income** as compared to their previous method of milk selling.
- **Easy to take loan from bank**–Now the farmers are having continuous source of income and the amount received from company is being saved in their bank account, bank also takes interest in giving loans to them to purchase more number of cattle and Bapudham MPC is also supporting them by giving their reference.
- **Helps in employment generation**–Employment is increasing in the village area and people are being attracted to dairy and milk business by keeping more number of cattle because of the high rate of milk given by the company.

- Less migration—Now people of such villages are not migrating to other states like Assam and Punjab in search of jobs to earn living and taking keen interest in this business, thereby profiting to Bapudham MPC as well.
- Filling caste gap—Bapudham MPC is also helping in reducing caste gap between upper and lower cast because in earlier time cattle rearing for milk production was taken as a job of Yadav community and upper caste in Bihar were hesitant to rear cattle but now they are also rearing cattle for milk production as it is an enormous source of income for them.
- Providing training to farmers—Bapudham MPC is also giving training to the farmers about the best methods of cattle feed as well as the quality of semen used for artificial insemination. They also encourage the farmers by giving them cattle feed at lower or no cost.
- Women Empowerment – As an initiative to empower the women of villages and making them self-independent, Bapudham MPC is charging only 50 rupees as membership registration fee instead of 100 rupees.
- Providing Ownership and a sense of respect among society-Bapudham MPC is a company whose share holders are farmers themselves and they are the real owner of the company. They get one share for Rs. 100. The employees are working as an information bank for those less knowledgeable and unexperienced farmers but the board members are chosen amongst the farmer themselves by a common consensus. All of these things are leading to respectful life of the farmers and a sense of belongingness within the society.

4.1 Benefits to the Cattles

In the operational area of Bapudham Milk Producer Company, Motihari, Bihar, the majority of the dairy farmers are practicing traditional feeding to their dairy animals. The farmers are not aware of the importance of feeding compound cattle feed and mineral mixture in quality milk production.

Farmers are feeding compound cattle feed along with other feed ingredients such as bran, choker, cereal grains & oil cakes (rarely) to their animals as the supplement. Feeding of a mineral mixture is negligible in these areas.

It is observed that there are many cattle feed manufacturers who are providing cattle feed to farmers but they are not providing as per the quality standards prescribed by authorities. To keep the tab on the price and giving good profit margins to the retailers, there is a practice of adding the cheaper source of protein (Urea) and other non-nutritive fillers to cattle feed among small feed millers. Due to a feeding of low standard compound cattle feed, the production level of milk in animals are decreasing and not producing milk as per their genetic potential, reproductive system is also getting affected which results into the late conception and related infertility issues.

Keeping in mind the prevailing scenario, Bapudham MPC is providing good quality animal nutrition inputs to its producer members under the brand name “Bapudham Feed” at a competitive price in two variants i. e. 50 kg and 25 kg bag. To encourage the feeding of a mineral mixture as regular feed supplements Bapudham took a unique initiative to include 1 Kg Area Specific Mineral Mixture (ASMM) inside every cattle feedbag.

Bapudham MPC is committed to making available these products to their producer members at Milk Pooling Point (MPP) level. Stringent quality measures are taken to ensure the quality of the products. To encourage Cashless transactions these products are being made available to producer members through “deduction from milk bill” and for non-members facility of Point of Sale (POS) facility is available at BMCs where they can purchase the variants by swapping their debit/credit card.

5. CONCLUSIONS

- From this research, we have known about the dairy industry and different processes followed in this industry for proper functioning. I also came to know about National Dairy Development Board and difference between producer company and milk cooperatives.
- We also learnt about the whole process through which the milk is produced by the cattle of farmers are reaching to the consumer i. e. the process of converting raw material to intermediate goods and finished products.
- We learnt about the process of becoming a member of Bapudham MPC and continuation of membership.
- We learnt about the quality measurement of milk produced by cattle and the period in which the quality of milk is high as well as low of the cattle.
- We learnt about the artificial insemination process and the cattle feeds.
- We also learnt about Milk Pouring/Pulling Points and Bulk Milk Chilling Center and the processes followed at these centers to check the quality of milk.
- We have learnt about PIB (Producer Institution Building) who are strengthening the business through better governance and member centric approach.
- We also learnt about the challenges faced by Bapudham MPC in initial set up at Motihari.
- We also came to know about the positive impact on the life of farmers due to this company.

6. RECOMMENDATIONS

- As currently Bapudham MPC is just 1.5 years old company and has good market coverage in East Champaran and West Champaran, it should also try to expand its operations in other nearby districts of Motihari to become more successful.
- Although within a short span of time, Bapudham has been able to create good infrastructure and atmosphere for the employees but it should try to get its own space and building for better functioning and expansion to other areas.
- It should focus to be more technically efficient as for now the data collected at MPP are being sent in pen drive to the BMC center and from there the data is being loaded on the server by technical expert and then it can be accessed by the managers in the office. So, the MPCs should be directly connected to the server and the data can be accessed by the managers at any point of time.
- CCTV security must be provided to the MPCs for hassle free transaction of services and to support the volunteers present at the center.
- Bapudham should expand its business by not only limiting to be a producer company but also become the supplier of milk in the market like Mother Dairy as local people understand that milk is of mother dairy but the proper credit of the success is not reaching to Bapudham MPC.

- Proper tracking of the vehicles in which milk is being transferred to the BMC center and then to Mother Dairy plant should be done so that issues related to disordering of milk or mixing in milk in between can come in sight, if any.
- Right now it can't be found accurately that whether the milk is fresh or not at the MPP center and if someone has given stale milk and it is being mixed with all other milk at the center then, it can spoil whole container and the volunteer will be solely responsible for the damage. So, proper testing kit to check fresh or stale milk should be used.

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